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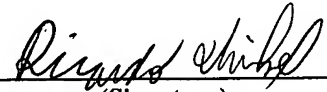
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant : Yoshinori SEKINE
Serial No. : 10/702,312
Filed : November 6, 2003
For : INSERT-MOLDED ARTICLE, PRODUCTION
METHOD OF THE INSERT-MOLDED ARTICLE
AND INK
Group Art Unit : 1774
Examiner : Tamra DICUS

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Ricardo Unikel
(Name)


(Signature)

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450

Sir:

This is an appeal from the final rejection of claims 1-12 in the Final Office Action of December 14, 2006. The present document is a Reply Brief in response to the Examiner's Answer of November 14, 2007.

STATUS OF CLAIMS IN THE APPLICATION

Claims 1-12 have been rejected in this application. Claim 1-12 are being appealed. No claims have been allowed.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Ground 1: Whether claims 1-12 are anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,933,044 (Ishikawa).

Ground 2: Whether claims 1-12 are anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,682,679 (Marentic et al.).

ARGUMENTS

The claims addressed in each ground of rejection do not stand or fall together unless specifically stated otherwise.

Ground 1: Whether claims 1-12 are anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,933,044 (Ishikawa).

Claim 1: Claim 1 recites, *inter alia*, "a film having transparency, a thermosoftening decorative print layer printed by use of a crosslinking printing ink on the backside of said film for the purpose of visual observation from the front surface side of said film" (emphasis added).

The Examiner's Answer states the following on page 4, first full paragraph: "Ishikawa teaches an insert-molded article comprising a film having transparency (2, FIGS. 3 and 4 and associated text), thermosoftening decorative print layer printed by use of a crosslinking printing ink (7, FIGS. 3 and 4 and associated text)". In other words, the Examiner's Answer deems the thermosoftening decorative print layer of claim 1 to be equivalent to layer 7 in Ishikawa. In fact, on the paragraph bridging pages 5-6, the Examiner's Answer states that the Examiner considers the metallic luster layer disclosed in Ishikawa as a different layer than the decorative layer recited in claim 1, which further supports this position. The Examiner's Answer even states in the paragraph

bridging pages 5-6 that "[t]he overall structure is in the following order as depicted in FIG. 4: transparent film (2), thermosoftening decorative print layer of crosslink ink (7), binder layer of lower degree of crosslink ink (8), and resin layer (4)." The Examiner's Answer also states that Appellants' claim does not exclude additional layers.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See Verdegaal Brothers Inc. v. Union Oil Company of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). It is Applicant's position that Ishikawa fails to anticipate claim 1 for the following reasons.

Claim 1 recites that the thermosoftening decorative print layer is printed on the backside of the film having transparency. The plain English meaning of claim 1 makes it clear that the film having transparency and the crosslinked decorative print layer are next to one another. Moreover, the specification also makes clear that the film having transparency and the crosslinked decorative print layer are next to one another. For example, in the paragraph bridging pages 5-6 of the specification it is stated that "the thermosoftening decorative print layer is applied by printing with a crosslinking printing ink, and hence the sufficient adhesion between the film [film having transparency] and the ink [decorative layer] can be obtained." The courts have made clear that "a claim must be read in view of the specification of which it is a part." *Renishaw plc v.*

Marposs Societa' per Azioni, 48 USPQ2d 1117, 1120 (Fed. Cir. 1998).

Accordingly, the film having transparency and the crosslinked decorative print layer are next to one another. In contrast, as is clear from Figure 4 of Ishikawa, resin layer 7, which the Examiner's Answer asserts is the decorative layer, is not next to transparent film 2 since metallic luster layer 3 is interposed between transparent film 2 and resin layer 7. Accordingly, claim 1 is distinguishable over Ishikawa since what the Examiner's Answer identifies as the decorative layer is not next to the film having transparency, in contrast to the recitation of claim 1. Applicant notes that the metallic luster layer 3 is not crosslinked and therefore cannot read on the recitation of the crosslinked decorative layer as recited in claim 1. Accordingly, claim 1 is patentable over Ishikawa at least for these reasons.

Also, claim 1 recites that the thermosetting decorative print layer is printed on the backside of the film having transparency for the purpose of visual observation from the front surface side of the film having transparency. Resin layer 7 is not a decorative layer and is also not made for the purpose of visual observation from the front surface side of the film having transparency since resin layer 7 is hidden by metallic luster layer 3, as clearly shown in Figure 4 of Ishikawa. Thus, claim 1 is also distinguishable over Ishikawa for this reason as well.

Accordingly, in light of the above, claim 1 is patentable over Ishikawa and notice to that effect is respectfully requested.

The Examiner's Answer states that the printing of layers is a process-derived limitations given little patentable weight because product-by-process claims are not limited to the manipulations of the recited steps. It is Applicant's position that the aforementioned reasons for the patentability of claim 1 over Ishikawa are not dependent on the interpretation of "printing" as being a structural limitation.

Claim 2: Claim 2 recites that the thermosoftening decorative print layer contains as the resin component a crosslinked polyester resin. The metal layer 3 of Ishikawa does not contain a crosslinked polyester resin. The layer 7 of Ishikawa is not in contact with the film having transparency. Accordingly, regardless of whether layer 3 or 7 is deemed the decorative layer, claim 2 is patentable over Ishikawa.

Claims 3-4: Claims 3 and 4 recite that the binder layer has a resin with a lower crosslinking degree than that of the decorative print layer. This is not present in Ishikawa since the metal layer 3 does not have any crosslinking and layer 7 is not in contact with the film having transparency.

Claims 5-12: Claims 5-12 are patentable at least for the reason that they depend from a patentable base claim.

Ground 2: Whether claims 1-12 are anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,682,679 (Marentic et al.).

Claim 1: The disclosure of Marentic et al. fails to include a single embodiment which can be identified as including all the elements recited in claim 1. The courts have made clear that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *See Verdegaal Brothers Inc. v. Union Oil Company of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, the courts have also made clear that “[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim*” (emphasis added). *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, 221 USPQ 481, 485 (Fed. Cir. 1984). *See also In re Bond*, 15 USQP2d 1566, 1567 (Fed. Cir. 1990) (stating that “[f]or a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. . . These elements must be arranged as in the claim under review.” Accordingly, since the final Office

Action of December 14, 2006 and the Examiner's Answer fail to identify any embodiment in Marentic et al. that includes all of the limitations of claim 1, arranged as recited in claim 1, it is Applicant's position that claim 1 is not anticipated by Marentic et al. Piecing together unrelated portions of a disclosure with hindsight to attempt to arrive at hypothetical embodiments allegedly like the claimed invention is inappropriate. In fact, it is particularly noteworthy that none of Figures 1 to 8 of Marentic et al. discloses an insert-molded article comprising a transparent film on the backside of which is a thermosoftening decorative print layer printed by use of a crosslinking printing ink for the purpose of visual observation from the front surface side of the film, a binder layer printed on the thermosoftening decorative print layer by use of a low-crosslinking or non-crosslinking printing ink as the source of the binder layer, and a resin molded by injection on the binder layer, as recited in Applicant's claim 1. For the foregoing reasons, the rejection of claim 1 and its dependent claims as anticipated by Marentic et al. is not well grounded and should be reversed.

The Examiner's Answer, on page 4, lines 14-20, relies on column 3, lines 5-20, 40-45, and 50-55 of Marentic et al. for the disclosure of the film having transparency, the thermosoftening decorative print layer, and the binder layer as recited in claim 1. However, the general disclosure of additional layers in Marentic et al. is insufficient to anticipate a thermosoftening decorative print layer printed by use of a crosslinking printing ink on the backside of the film

having transparency for the purpose of visual observation from the front surface side of said film and a binder layer printed on the thermosoftening decorative print layer by use of a low-crosslinking printing ink or a non-crosslinking printing ink as the source of the binder layer. Anticipation requires that the Examiner specifically show each limitation in the prior art rather than make generalized statements based on general disclosures in the prior art. Thus, Applicant's position is that the disclosure of "intermediate layers" in Marentic et al. is insufficient to anticipate the decorative print layer and the binder layer as recited in claim 1.

Furthermore, claim 1 recites a resin molded by injection on the binder layer. Thus, the plain language of claim 1 makes clear that the molded resin and the binder layer are next to one another. Additionally, the specification makes clear, on page 7, second full paragraph, that the resin is molded on the binder layer so that the molded resin and the binder layer are well adhered to one another. The courts have made clear that "a claim must be read in view of the specification of which it is a part." *Renishaw plc v. Marposs Societa' per Azioni*, 48 USPQ2d 1117, 1120 (Fed. Cir. 1998).

The Examiner's Answer, on page 4, line 20 - page 5, line 2 and on page 7, line 16, relies on Figures 5 and 7 of Marentic et al. to support the anticipation of the claimed invention. However, in Figures 5 and 7 of Marentic et al., color gel coat 22 is interposed between molded structure 24 and first

intermediate layer 14 (the "12" in Figure 7 of Marentic et al. is a typographical error). This color gel coat is a different layer than the "intermediate layers" that the Examiner's Answer alleges anticipate the thermosoftening decorative print layer and the binder layer as recited in claim 1 (see Examiner's Answer page 4, lines 14-20). Thus, claim 1 recites that the binder layer and the molded resin are next to one another while Figures 5 and 7 of Marentic et al. show that color gel coat 22 is what is next to the molded structure instead of any of the "intermediate layers" which the Examiner's Answer alleges anticipate the decorative layer and the binder layer. Thus, Figures 5 and 7 of Marentic et al. cannot anticipate claim 1 of the present application. Moreover, the color gel coat 22 cannot, instead, be deemed as the binder layer recited in claim 1 at least for the reason that it does not contain a low-crosslinking printing ink or a non-crosslinking printing ink. Accordingly, Figures 5 and 7 of Marentic et al. do not meet the limitations of claim 1.

Alternatively, the Examiner's Answer states on page 8, line 3 that "the resin mold layer is equivalent to again 22 or 24." This interpretation by the Examiner, which deems color gel coat 22 as a molded structure, leaves Figures 5 and 7 of Marentic et al. with only two layers that can be used to allegedly anticipate the transparent film, the decorative layer, and the binder layer as recited in claim 1. Thus, interpreting the color gel coat as a molded structure leaves Figures 5 and 7 of Marentic et al. without enough layers to allegedly

anticipate claim 1. Accordingly, Figures 5 and 7 of Marentic et al. cannot anticipate claim 1 of the present application.

The Examiner's Answer states on page 7, line 12 that the inks may be non-crosslinkable vinyl or acrylic inks. This reference to the inks is distinguishable from the claimed invention since the decorative ink layer is crosslinked, as recited in claim 1. The Examiner's Answer also cites to these non-crosslinkable inks on page 8, first full paragraph, as anticipating the "low crosslinking ink" of the binder layer. However, there is no disclosure in Marentic et al. of these non-crosslinkable inks being used to form the binder layer. Moreover, non-crosslinkable inks will provide a non-crosslinked ink layer, not a "low crosslinking ink" layer. Accordingly, this argument also fails to establish the anticipation of the present invention.

In the paragraph bridging pages 8-9 of the Examiner's Answer there is an attempt to explain the presence of layers with more and with less crosslinking in Marentic et al. However, Applicant disagrees with such explanation. The Examiner's Answer states on page 8, lines 8-15 that "as one of the reactants, either a difunctional acid and/or a dihydroxyl alcohol, and maleic acid or anhydride" is used and that "more crosslinking is taking effect as more crosslinking aids/ingredients are added" and that "more crosslinking vs. less is taking place and. . . the binder layer having a lower crosslinking degree than the thermosoft decorative print layer is effected." The Examiner's Answer

cites to column 6, lines 40-55 and column 7, lines 1-27 for support. However, in column 6, lines 44-55 of Marentic et al., where the disclosure of difunctional acids, dihydroxy alcohol, maleic acid, and maleic anhydride takes place, is directed to explaining how the polyesters are made. This is not a disclosure directed to having more vs. less crosslinking present in different layers.

Rather, this is a description that explains how to make the polyesters for use with the invention of Marentic et al. There is no disclosure in Marentic et al. of any more vs. less crosslinking going on between different layers. More specifically, there is no disclosure of a binder layer having a lower crosslinking than a decorative layer. Accordingly, the above assertions in the Examiner's Answer regarding low crosslinking is unsupported and is insufficient to support an anticipation rejection. As for column 7, lines 1-27 of Marentic et al., there is no disclosure of one layer having more crosslinking than another layer and, especially, there is no disclosure of a binder layer having less crosslinking than a decorative layer.

Additionally, the Examiner's Answer states on page 5, first full paragraph, that the resin being molded by injection is a product-by-process limitation that is not distinguishable over the cited art. However, the injection molded resin recited in claim 1 has a different *structure* than the molded structure disclosed in Marentic et al. It is explicitly disclosed in Marentic et al. in column 13, lines 50-57 that the molded structure can include one or more

reinforcing substrates and a crosslinkable support resin and that the molded structure is generally formed by layering reinforcing substrates and the crosslinkable support resin, preferably in an alternating fashion. Marentic et al. discloses in column 13, lines 58-67 that the reinforcing substrates can be fiberglass, carbon fiber, kevlar, foam, balsa wood, and angelhair and that the substrates are generally in the form of a mat, a weave, and the like. In other words, the molded structure of Marentic et al. is very different from an injection molded resin and one of ordinary skill in the art would know that. In injection molding, melted resin is added to the mold and then cooled (see, for example, paragraph bridging pages 19-20 of the specification). This causes the resin to solidify upon cooling and this creates a structure that is different than structures obtained by applying solutions which are then heated to evaporate solvents or structures which are the result of applying a layer and then curing the layer. One of ordinary skill in the art would know that cooling a melted resin provides a different structure than coating and drying a layer or coating a layer and letting it cure. Accordingly, the invention of claim 1 is structurally different than the invention of Marentic et al. and is therefore distinguishable from and patentable over Marentic et al.

The Examiner's Answer states in the paragraph bridging pages 8-9 that examples and preferred embodiments do not constitute a teaching away and that the disclosure of more than one alternative is also not a teaching away. It is

Applicant's position that anticipation has not been demonstrated because Marentic et al. fails to disclose the recitations of the claimed invention and arguments about lack of teaching away do not change this fact.

Accordingly, in light of the above, it is Applicant's position that claim 1 is patentable over Marentic et al. and notice to this effect is respectfully requested.

Claim 2: Claim 2 is patentable at least for the reason that it depends from a patentable base claim.

Claims 3 and 4: A further reason for reversing the rejection of these claims as anticipated by Marentic et al. is that the reference does not disclose a specific product wherein a binder layer printed on a thermosoftening decorative print layer has a resin component having a crosslinking degree lower than that of the resin component in the thermosoftening decorative print layer.

The Examiner's Answer, on page 5, lines 13-16, cites to column 7, lines 1-5 of Marentic et al. for the proposition that adding a secondary saturated acid to the polyester resin reduces crosslinking and that this anticipates the crosslinking of the binder layer being lower than the crosslinking of the decorative layer. However, there is no disclosure of having a binder layer that has lower crosslinking than the decorative layer in Marentic et al. The disclosure in column

7, lines 1-5 of Marentic et al. is directed to stating that the addition of a secondary saturated acid reduces crosslinking relative to an all unsaturated acid polymer base. However, there is no disclosure anywhere in Marentic et al. of alternating between layers with full unsaturation and layers with secondary saturated acids. In particular, there is no disclosure of having a binder layer with secondary saturated acids next to a decorative layer with an all unsaturated acid polymer base.

Also, the Examiner's Answer, on page 8, first full paragraph, cites to non-crosslinkable inks in Marentic et al. to support the disclosure of a binder layer with less crosslinking than a decorative layer. However, there is no disclosure in Marentic et al. of these non-crosslinkable inks being used to form the binder layer. Moreover, non-crosslinkable inks will provide a non-crosslinked ink layer and claims 3-4 recite that the binder layer has low-crosslinking present (as opposed to no crosslinking present). Accordingly, this argument also fails to establish the anticipation of the present invention.

In the paragraph bridging pages 8-9 of the Examiner's Answer there is an attempt to explain a binder layer having less crosslinking than a decorative layer. The Examiner's Answer states on page 8, lines 8-15 that "as one of the reactants, either a difunctional acid and/or a dihydroxyl alcohol, and maleic acid or anhydride" is used and that "more crosslinking is taking effect as more crosslinking aids/ingredients are added" and that "more crosslinking vs. less is

taking place and. . . the binder layer having a lower crosslinking degree than the thermosoft decorative print layer is effected." The Examiner's Answer cites to column 6, lines 40-55 and column 7, lines 1-27 for support. However, in column 6, lines 44-55 of Marentic et al., where the disclosure of difunctional acids, dihydroxy alcohol, maleic acid, and maleic anhydride takes place, is directed to explaining how the polyesters are made. This is not a disclosure directed to having more vs. less crosslinking present in different layers. Rather, this is a description that explains how to make the polyesters for use with the invention of Marentic et al. There is no disclosure in Marentic et al. of any more vs. less crosslinking present between different layers. More specifically, there is no disclosure that the binder has a lower crosslinking than the decorative layer. Accordingly, the above assertions in the Examiner's Answer regarding low crosslinking is unsupported and is insufficient to support an anticipation rejection of claims 3 and 4. As for column 7, lines 1-27 of Marensic et al., there is no disclosure of one layer having more crosslinking than another layer and, especially, there is no disclosure of the binder layer having less crosslinking than the decorative layer.

Accordingly, the Examiner's Answer fails to demonstrate that claims 3 and 4 are anticipated by Marentic et al.

Claims 5-12: Claims 5-12 are patentable at least for the reason that they depend from a patentable base claim.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,

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